

ABSTRACT

A method is provided for estimating the position of a movable device in a borehole. The method comprises the steps of:

- 5       (a) providing a prior location probability distribution associated with a first position of the device in the borehole,
- (b) providing a measurement of a putative distance moved by the device and/or a measurement of a characteristic  
10   of the surroundings of the device, the or each measurement being associated with movement of the device to a subsequent position in the borehole, and
- (c) calculating a posterior location probability distribution associated with the subsequent position, the  
15   posterior location probability distribution being conditional on the prior location probability distribution, and the or each measurement.